

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

5w5
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Claim 1 (original): A method of displaying nodes within a network topology, the method using a processor coupled to a display screen, the method comprising:

forming a first layer of a multi-layer representation wherein at least two nodes are represented separately;

grouping the nodes of the first layer into group nodes to form a second layer in the multi-layer representation;

grouping the group nodes of the second layer into a third layer, the third layer having at least one connected-superset node containing group nodes with nodes connected to each other, and at least one isolated-superset node containing group nodes having nodes isolated from each other; and

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displaying the superset nodes in the third layer so the connected-superset node is separate from the isolated-superset node and such that the connected-superset node is selectively expandable to display group nodes and connections between the nodes, and the isolated-superset node is selectively expandable to display group nodes of the second layer.

Claim 2 (original): The method of claim 1, wherein the step of forming comprises a step of creating a graph of nodes to be displayed in the network as a leaf graph.

Claim 3 (original): The method of claim 2, wherein the leaf graph includes components and interconnection paths of the network.

Claim 4 (original): The method of claim 1 wherein the group nodes in the connected-superset node are laid out according to layout rules.

Claim 5 (original): The method of claim 4 wherein the group nodes in the connected-superset node comprises any one or more of switch groups and host groups.

Claim 6 (original): The method of claim 5 wherein a layout rule consists of the switch group with the highest connectivity being placed in the center of the connected-superset node.

Claim 7 (original): The method of claim 1 wherein the connected-superset node is fully expandable while the isolated-superset node is minimized.

Claim 8 (original): The method of claim 1 wherein the isolated-superset node comprises any one or more of unmapped hubs and isolated switches.

Claim 9 (original): The method of claim 1 wherein the isolated group node consists of isolated devices other than unmapped hubs and isolated switches.

Claim 10 (original): A method of displaying nodes within a network topology, the method using a processor coupled to a display screen, the method comprising:

forming a first layer of a multi-layer representation wherein at least two nodes are represented separately;

grouping the nodes of the first layer into group nodes to form a second layer in the multi-layer representation;

grouping the group nodes of the second layer into a third layer, the third layer having at least one connected-superset node containing group nodes with nodes connected to each other, but not connected to any other nodes belonging to other connected-superset nodes; and

displaying the connected-superset node in the third layer such that the connected-superset node is selectively expandable to display group nodes and connections between the nodes.

Claim 11 (original): The method of claim 10 wherein grouping the group nodes of the second layer into a third layer further comprises, the third layer having at least one isolated-superset node containing group nodes having nodes isolated from each other; and

displaying the superset nodes in the third layer so the connected-superset node is separate from the isolated-superset node and such that the connected-superset node is

selectively expandable to display group nodes and connections between the nodes, and the isolated-superset node is selectively expandable to display group nodes of the second layer.

Claim 12 (new): A computer-based method for graphically displaying a network, comprising:

forming a first layer of a multilayer representation of the network including representations of a plurality of nodes, the first layer including components and interconnections of the network;

forming a second layer of the multilayer representation by grouping the plurality of nodes into two or more group nodes based on grouping criteria;

forming a third layer of the multilayer representation by grouping the group nodes into sets of nodes; and

displaying the multilayer representation including the nodes, the group nodes, and the sets of nodes, wherein the group nodes in the second layer can be expanded to selectively display one or more of the plurality of nodes and the sets of nodes in the third layer can be expanded to selectively display one or more of the group nodes.

Claim 13 (new): The method of claim 12, wherein the grouping criteria are based on functional relationships.

Claim 14 (new): The method of claim 13, wherein the functional relationships are defined to not require physical proximity in the network.

Claim 15 (new): The method of claim 12, further including during the expansion of the group nodes, continuing to display connections of the displayed nodes to remaining ones of the group nodes that have not been expanded.

Claim 16 (new): The method of claim 12, wherein the sets of nodes include a connected-superset node comprising the nodes connected to each other and an isolated-superset node comprising a set of the nodes not connected to other ones of the nodes.

Amendments to the Drawings:

In response to the Notice of Draftsperson's Patent Drawing Review and the Examiner's objections, the attached Replacement Sheets provide formal drawings for the application. The Replacement Sheets replace the original sheets including Figs. 1A – 5B.

Figures 2 and 3 were corrected to change the second use of "240" to "239" (which points to a bridge as described in the specification). As noted, in the Examiner's objections numbers 100, 110, 442, 446, 448, 450, and 270 were included in the figures but not in the specification (note, element 510 listed in the objection is described at page 10, line 15 of the specification). The specification is amended to include reference to elements 100, 110, and 446 and Figures 4A and 5B are amended to delete reference to elements 442, 448, 450, and 270 as repetitive. Figure 5A is amendment to address the objection to the double use of "540" with element 540 in Figure 5A being amended to "539" (along with a corresponding change to the specification).

No new matter was added in the Replacement Sheets with support being found in the originally-filed specification and/or figures, and because any changes made were made simply to comply with Patent Office drawing rules and to make minor element numbering corrections, an annotated sheet showing changes was not believed necessary and was not included with this Amendment.